

Remarks

Claims 1 to 5, 7 to 18, 20 to 33 are pending in this application, and all have been rejected for the reasons discussed below.

Amendments

Claims 1 and 18 are amended herein to recite that the total duration of the pressure changing speed rates is “insignificantly longer” than a defined standard pressure changing phase duration. This amendment addresses the examiner’s comments at page 10, paragraph 9. It is noted that there is no material difference between the claims before and after they were amended, as explained below.

At pages 11 to 12 of the action, it states,

In response to applicant's arguments that Innings monitors and not controls the phase changing duration, applicant has not claimed any particular method of how the pressure curve is controlled, but only that it is controlled for the duration of the pressure changing phase. Innings controls the entire milking process, and thus each component of the process (such as the noted vacuum levels, maximum vacuum level, pulsator ratio, pulsating frequency, etc.), rendering control during the pressure change phase. Further, the rate changes are visible within the graphs of Figs. 2 and 3.

In view of the examiner’s helpful remarks, it appears that there is undue emphasis in the claims to controlling curves and not a pulsator valve. Applicants disagree with the examiner’s conclusion regarding *Innings*, but believe that the amendments address the examiner’s concerns.

More specifically, claim 1 is further amended to recite that *a pulsator is being controlled to reflect a curve* in accordance with the recitation of the claims. Applicants respectfully submit that this amendment further distinguishes claim 1 from the cited art.

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Claims 1 and 18 are also amended to recite that there is a first and a second pressure changing phase and that liner movement changes as a result. See paragraphs 50 to 52 of the published specification for a description of these claim terms.

Further, claims 2 through 5, 7 through 10, and 17 are amended to be consistent with the amendments to claim 1.

If the examiner's comments are still being misunderstood, Applicants' undersigned counsel is available by telephone to discuss other possible amendments to address the examiner's concerns.

Claim 18 is further amended to recite in the body of the claim (and not just in the preamble) that the controller alternatively connecting the vacuum source and the pressure source to the pulse chamber of the teat cup to result in a pressure-time curve having two pressure changing speed rates that are not significantly longer than a predetermined pressure changing phase using no controlled changes in pressure changing speed rate. This addresses the examiner's comments at page 11, paragraph 3.

Claim 18 is also amended to define first and second pressure changing phases, as discussed above in regard to claim 1.

No new matter is added by these amendments.

Claim Rejections

The claims were rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement because the claim language speed rate changes that do not "substantially exceed" the duration of a duration having no speed rate changes is not supported by the specification, which recites a duration that is "insignificantly longer." This issue appears to be the result of a translation of the

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application from German to English. This is such a minor difference that a correction to the claims has been made.

Next, the examiner states the following:

In response to applicant's argument that neither Grimm nor Innings discloses a "significantly longer" duration (pages 14 and 17), the applicant has not defined this new matter, and accordingly, a best approximation is given. Grimm depicts a graph whereby the length of each period closely mirrors each other, and each is deemed "substantially" similar.

Appropriate amendments are made to claims 1 and 18 to traverse this §112 rejection.

Claims 1 to 5, 7 to 12, 14, 17, 18, 21 to 23, 26, 28, and 31 to 33 were rejected under 35 U.S.C. §102(b) as being anticipated by *Grimm et al.*, U.S. Patent 5,970,910. This is essentially the same rejection addressed in Applicants' December 22, 2010 office action response.

Grimm et al.

Grimm et al. discloses a method of milking an animal with a vacuum cycle as illustrated by broken lines 19 and 20 in Fig. 9 and line 24 in Fig. 10. As seen in these pressure curves, the application of "low efficiency" pressure to slow down liner movement during pulsation results *in a significantly longer pulsing cycle duration*. While this may result in a gentler milking pulsation, the duration of the pulse cycle will be *significantly longer*, as *Grimm et al.*'s chart shows. The chart in Fig. 9 does not show a duration of the pressure changing phase that is "insignificantly longer" than a defined standard pressure changing phase duration, as recited in amended claims 1 and 18. Thus, these claims and their respective dependent claims are not anticipated by *Grimm et al.* and would not have been obvious to one skilled in the art.

There is no disclosure anywhere in *Grimm et al.* of a pulsation cycle that is controlled to be represented by a pulsation curve that is substantially flatter yet cycles at a normal rate. Therefore, *Grimm et al.* also does not disclose the step of “controlling the pulsator to retain” the total time length for the pressure changing phase, with the two pressure changing speed rates and related liner movement, that is insignificantly longer than the defined standard pressure changing time length, as recited in amended claims 1 and 18.

Indeed, *Grimm et al.* discloses a modified pressure change phase for a milking cycle (as is seen in Figs. 9 and 10 of *Grimm et al.*) that is *significantly* longer and will result in longer milking times to achieve a desired result.

Applicants are aware of no disclosure in *Grimm et al.* that recognizes problems associated with extended milking times and there is no disclosure of any method or device that accomplishes a modified milking pressure changing phase. Therefore, the claims are not anticipated by and would not have been obvious in view of *Grimm et al.*.

One Benefit of the Claimed Invention

Controlling a pulsator to generate a pressure curve without changing its pressure changing phase duration is not a minor or obvious detail in a modified milking process. Indeed, extending milking times in a commercial dairy results in reduced efficiency and fewer animals milked in any given parlor size. Even in view of these constraints, *Grimm et al.* fails to disclose to, suggest, teach or motivate one skilled in the art to use pressure phase changing methods or apparatus *without* significantly extending pressure changing phase durations (that correspond directly to milking times), as recited in amended independent claims 1 and 18.

In the present invention, pressure phases and/or evacuation phases that are within the overall pulsation cycle are varied to achieve improved milking without extending milking times. To accomplish this objective, a valve operation in accordance with the present invention is provided in valve 9, or valves 20 and 21, for example.

Allowability over *Grimm et al.*

Given that *Grimm et al.* fails to disclose key elements of amended independent claims 1 and 18, the anticipation rejections are not appropriate.

Further, the obviousness rejections under 35 U.S.C. §103(a) fail to meet a *prima facie* standard because there is no teaching, motivation or suggestion in *Grimm et al.* to modify a milking process to improve animal comfort and yet maintain *standard* pressure changing phase durations. This is true regardless of whether *Grimm et al.* is taken alone or in combination with *Kaneko* or *Krone*. Thus, claims 15, 16, 27, 31, and 32 would not have been obvious to one of ordinary skill in the art.

While animal comfort is not expressly stated in the claims, liner movement is recited. Liner movement as claimed results in improved cow comfort, and the claims are allowable for this additional reason.

Claims 1, 10, 12, 13, 18, 20, and 23 to 25 were rejected under 35 U.S.C. §102(b) as being anticipated by *Innings et al.*, U.S. Patent 6,009,832. This is essentially the same rejection addressed in Applicants' December 22, 2010 office action response, except that claim 10 is also now included.

In addition to this rejection, the final paragraph of the examiner's remarks at page 12 of the action states,

Applicant's request that the elements be "strictly compared" to those of *Innings* is denied. The test is not whether an applicant's device is strictly disclosed by a

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reference, but whether a broadest reasonable interpretation of a reference produces the limitations of the applicant's claims.

Emphasis added. With all due respect, it is not within the examiner's discretion to "deny" making an anticipation rejection in the way the law requires.

As stated in Applicants' previous responses, to maintain a rejection under 35 U.S.C. §102(b), all of the elements of each claim must be disclosed in a single reference. *The test for anticipation requires a strict, not substantial, identity of corresponding claim elements.* Finisar Corp. v. DirecTV Group, Inc., 523 F.3d 1323, 1334-35, 2008 U.S. Appl. LEXIS 8404, 27-28 (Fed. Cir. 2008). Emphasis added. Thus, the examiner has no choice but to make the comparison for a "strict identity" between the reference and the claim elements.

The law does not give to patent examiners the discretion to deny this test. The requirement is clear. Further, under 35 U.S.C. §102, every limitation of a claim must identically appear in a single prior art reference for it to anticipate the claim. Gechter v. Davidson, 116 F.3d 1454, 1457, 43 USPQ2d 1030, 1032 (Fed. Cir. 1997). Furthermore, an anticipatory reference must unequivocally disclose the claimed method or direct those skilled in the art to the method without any need for picking, choosing, and combining various disclosures not directly related to each other by the teachings of the cited reference. See *In re Arkley*, 455 F.2d 586, 587, 172 USPQ 524, 526 (CCPA 1972).

When Applicants asked the examiner to make a strict comparison, they were not asking for a favor. The request was a respectful way of insisting that the examiner follow the law by showing a strict comparison between the prior art and the elements of the claim. The examiner is not in a position to deny Applicants their rights under the law.

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It was also an error to read the prior art with the “broadest reasonable interpretation.” Claims, not references, are read this way. References are read for what they disclose to one skilled in the art. It appears that confusion about legal standards could be causing the rejections to be made unfairly. When the law is properly applied, it is clear the claims are not anticipated by the cited references.

As stated in early responses, *Innings et al.* is understood to *monitor* not *control* the pressure changing phase in a pulse chamber. There is no disclosure to one skilled in the art of the claimed features and there is no legal justification for using a “broadest reasonable interpretation” of prior art that contradicts or adds to the disclosure. Thus, the disclosure (and not an interpretation) fails to anticipate the claims.

Figs. 2 and 3 do not illustrate controlled changes in a pressure curve. Rather, they illustrate pressure curve changes that naturally occur when a liner contacts or releases from an animal. The action at page 7 argues that “as best understood” *Innings* discloses the elements of claim 1. Thus, the examiner appears to be speculating about *Innings’* disclosure.

In any event, *Innings* attempt at controlling pressure changing phases does not occur during the phase itself. Rather the controlling is done in subsequent phases as a function of actual milk flow. This is not a disclosure of varying pressure changing phase durations with two changes in pressure changing speed rates as recited in independent claims 1 and 18. This is clear where *Innings et al.* states:

The object of the present invention is to overcome the disadvantages mentioned above and to provide an improved way of controlling the milking process *in response to the actual milk flow*.

Controlling the *milking intensity* may comprise controlling one or more of milking parameters, such as the milking vacuum level, the maximum

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pulsating vacuum level, the pulsator ratio, the pulsating frequency, etc. E.g. a reduction of the milking vacuum level, the maximum pulsating vacuum level or the pulsator ratio, or by increasing the pulsating frequency.

(Emphasis added.)

None of these options disclosed by *Innings et al.* is a disclosure of controlling pulsator pressure change rates in a single pressure change phase or changing the pressure change rates and still be within the duration of a standard pressure change phase.

Again, if the examiner maintains this rejection, it is respectfully requested that all of the specific claim elements be strictly compared to *Innings et al.* As stated above, this is a legal requirement.

Allowability over *Innings et al.*

In view of the above, *Innings et al.* fails to disclose a method as recited in any of the amended claims. Thus, Applicants respectfully submit that the amended claims are not anticipated by *Innings et al.* Because there is no strict correspondence between *Innings et al.* and the claims of this application. Applicants' counsel is available for a telephone interview to discuss this and all other rejections raised by the examiner.

Rejection Under 35 U.S.C. §103

Claims 15 and 16 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Grimm et al.* in view of *Kaneko*, U.S. 5,897,304. Claim 27 was rejected under 35 U.S.C. §103(a) as being unpatentable over *Grimm et al.* in view of *Krone*, U.S. Patent 5,628,491. These are also the same rejections addressed in Applicants' December 22, 2010 office action response.

Claims 15 and 16 were rejected under 35 U.S.C. §103(a) over *Grimm et al.* (discussed above) in view of *Kaneko*, U.S. Patent 5,897,304 for the reasons stated on

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page 10 of the action. Claims 15 and 16 would not have been obvious to one skilled in the art because not all of the claim elements of claim 1 (from which claims 15 and 16 depend) are present in *Grimm et al.* and *Kaneko*. Further, there is no teaching, suggestion or motivation to one skilled in the art to supply the missing elements described in much detail above because (among other things) *Grimm et al.* does not even consider the benefit of maintaining phase durations or the problems of not maintaining phase durations.

Claim 27 was rejected under 35 U.S.C. §103(a) over *Grimm et al.* (discussed above) in view of *Krone*, U.S. Patent 5,628,491 (copy enclosed) for the reasons listed on pages 10 to 11 of the action. Claim 17 would not have been obvious to one skilled in the art because not all of the claim elements of claim 1 (from which claim 17 depends) are present in *Grimm et al.* and *Krone*.) Further, there is no teaching, suggestion or motivation to one skilled in the art to supply the missing elements.

Incidentally, at page 11 of the action, it states,

Applicant's comments on whether certain limitations (such as animal comfort) need not be within the claims (page 13) are acknowledged, however applicant is reminded that structures, method steps and intended uses not within the claims are not given patentable weight. While the claims are read in light of the specification, limitations from the specification are not read into the claims. Accordingly, applicant's arguments regarding animal comfort (page 16) are generally moot as the limitations are not claimed.

From this argument, it appears as though the examiner is maintaining a position that animal comfort should be an element of the claims. Of course, animal comfort is not easily quantifiable, so such a limitation should not be included in a patent claim. Indeed, it would likely draw a §112 rejection. (See §112 rejection above.) Nonetheless, liner

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movement is now recited and it corresponds to animal comfort. (See paragraph 20, for example.) Thus, the examiner's concern is addressed.

On the other hand, the examiner's comment that arguments of such a benefit are "moot" simply because the benefit is not claimed is another erroneous statement of law because not all of the benefits of a device or method need to be recited in the claims. To require such a claim drafting standard would unduly limit the scope of patent claims. If there is legal authority supporting the examiner's "moot" determination, Applicants respectfully request that it be cited.

Conclusion

For the foregoing reasons, the amended claims are allowable and Applicants respectfully request this case be passed to issue.

Respectfully submitted,

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